alkali isomerization to a conjugated system. The conjugated system in both the C_{12} and C_{14} acids was shown to be in a terminal position by identification of formaldehyde after ozonolysis. The appropriate fragment from ozonolysis also established the other end of the conjugated system as at carbon-3 in the C_{12} acid and at carbon-5 in the C_{14} acid. Confirmatory evidence was obtained from mass spectrometry of the deuterated esters. Thus, assigned structures for the conjugated pentaenoic acids, believed to be the first found in natural products, are 3,5,7,9,11-dodecapentaenoic acid and 5,7,9,11,13-tetradecapentaenoic acid. The names C_{12}-ajenoic acid and C_{14}-ajenoic acid are proposed.

QUALITATIVE AND QUANTITATIVE DETERMINATION OF 1,2- AND 1,3-DIGLYCERIDES BY NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY. R.J. Warren and J.E. Zarembo. *J. Pharm. Sci.* 59(6), 840–2 (1970). To determine 1,2-diglycerides in the presence of the 1,3-isomers, prepare an 8% solution of the sample in 3% $CHCl_3$ solution in $CDCl_3$ and record the integrated NMR spectrum at 60 MHz. Measure the ratio of the integrals of the signals at 3.75 ppm (for 1,2-diglycerides) and 7.27 ppm (for $CHCl_3$). The chemical shifts are relative to tetramethylsilane. The method was applied to distearins. (World Surface Coatings Abs. No. 352)

STORAGE BEHAVIOR OF SAFFLOWER AND TOBACCOSEED OILCAKES. T. Lakshminarayana, G. Siva Rami Reddy, S.D. Thirumala Rao and B.R. Reddy (Oil Tech. Res. Inst., Anantapur, India). *Indian Oil Soap J.* 36, 233–8 (1971). The storage behaviour of decorticated and undecorticated safflower oil cakes and taboccoseed oil cake was studied. The cakes were stored in three different ways in gunny bags at ambient room temperature for one year. The cakes were analyzed periodically for moisture and oil contents. It was observed that decorticated safflower cake could be stored well up to 7 months, while the undecorticated variety, up to 3 months only without diminution in oil content. In the case of tobaccoseed oil cake, there was no decrease in oil content even after 12 months.

FATTY ACID COMPOSITION OF SOME INDIAN SEED OILS BY GAS-LIQUID CHROMATOGRAPHY. PART II. GROUNDNUT, SESAME AND MUSTARD OILS. J. Dutta and A. Ghosh (Dept. Chem., Bose Inst., Calcutta 9, India). *Indian Oil Soap J.* 36, 239–242 (1971). Fatty acid compositions of groundnut (3 varieties), sesame (5 varieties) and mustard (4 varieties) oils have been determined by gas liquid chromatography on Apiezon (non-polar) and polyester (polar) columns. The sesame oils studied showed fairly high consistency in their fatty acid compositions. Among the mustard oils studied, one variety contained markedly low acid compositions. Of the groundnut oils, one variety was poor in oleic acid (35%) and rich in linoleic (27%); the other varieties were regular in their fatty acid distribution. Beside these and other minor quantitative differences, no quantitative difference were found.

PROCESS FOR THE COMPLEX TREATMENT OF COTTONSEEDS. Anon. (Central Soviet Licensing Organization, Moscow). *Rev. Franc. Corps Gras* 18, 617–9 (1971). A special technique for processing cottonseeds so as to eliminate gossypol from the meal and to improve the protein quality of the meal is discussed. Most of the gossypol is removed by extracting the miscella with a special solvent. The extracted meal is enriched with soapstock lipids and has increased value for animal feeding. A licensing agreement for the process is possible.

CHOCOLATE CONTAINING SOY FLOUR. A. Sroczynski *et al. Przemysl Spozywczy* 25(7), 267–8 (1971). A method is described for preparing soybeans so the flour is useful in making chocolate. After enrichment with soybean oil, the flour has the color and flavor of chocolate. Plant scale trials were carried out in order to verify the usefulness of this product in the preparation of chocolate and coatings. (Rev. Franc. Corps Gras)

COMPARISON OF METHODS FOR DETERMINING ASH IN OILSEED PRESSCAKE. A. Wojnarowicz. *Tluscze Jadalne* 15(4), 198–205 (1971). The addition of oxidizing agents had no effect on the ash determination but did accelerate the ashing process. Once above minimum values, neither the time nor the temperature of ashing affected the results. As a minimum time, it was convenient to use 5–5½ hours. (Rev. Franc. Corps Gras)

EFFECT OF FLUIDIZED BED DRYING ON THE LIPIDS OF SUNFLOWER SEEDS. V.K. Kostenko *et al. Izv. Vysshikh Uchebn. Zavedenii, Pishchevaya Tekhnol.* 1971(5), 75–6. Changes which occur in the lipids during drying are determined by the temperature as well as by the condition and the quality of the seeds themselves. The effects of the drying process on the lipase and lipoxidase in the seeds were studied. It was found necessary to use temperatures in the range of 110–115C. (Rev. Franc. Corps Gras)

USE OF THIN LAYER CHROMATOGRAPHY FOR DETERMINING EPOXIDIZED SOYBEAN OIL. V.D. Feofanov. *Izv. Vysshikh Uchebn. Zavedenii, Pishchevaya Tekhnol.* 1971(5), 168–70. TLC on silica gel was used to separate epoxidized soybean oil into six fractions. The solvent system consisted of hexane/diethyl ether/acetic acid (73/25/2). The epoxidized oil also migrated on films of polyisoprene hydrochloride developed with water and heptane. It did not migrate on a film containing 2% oil and 10% dioctylsebacate using the same solvents. (Rev. Franc. Corps Gras)

INITIAL OXIDATION THROUGH OXYGEN AND OLEFIN INTERACTIONS. N.A. Khan (PCSIR Labs., Dacca, Bangladesh). *Oleagineux* 26, 631–4 (1971). The theoretical chemistry of the interactions between oxygen and olefins is reviewed. Special attention is paid to the oxidation of unsaturated fatty acids. The triplet state of O_2 is shown to produce only the conjugated cis-trans hydroperoxide.

BLEACHING OF SOYBEAN OIL IN THE MISCELLA. E.I. Zuev *et al. Tr. Vses. Nauchn.-Issled. Inst. Zhirov* 27, 108–16 (1970). Under the conditions chosen for bleaching in the miscella, a sufficiently selective extraction of the pigments without appreciable absorption of phosphatides occurs. A decrease in isomerization of unsaturated fatty acids and of formation of melanophosphatides was observed. Since the process takes place at a lower temperature (20C instead of 90C), loss of neutral oil is reduced about fivefold. (Rev. Franc. Corps Gras)

POSITIONAL ISOMERIZATION OF THE UNSATURATED FATTY ACIDS DURING CONTINUOUS INDUSTRIAL HYDROGENATION OF SUNFLOWER OIL. E.I. Gorskova *et al. Tr. Vses. Nauchn.-Issled. Inst. Zhirov* 27, 192–8 (1970). The kinetics of positional isomer formation in the double bonds of linoleic and oleic acids during continuous selective hydrogenation of sunflower oil using a nickel-copper catalyst under high temperature conditions was studied. At low catalyst concentrations, the rate of positional and geometrical isomer formation was lowered. Under these conditions, an equilibrium ratio between the positional